

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (cancelled)

Claim 21 (new) A multistage differential amplifier, comprising:

(a) a first amplifier stage, said first amplifier stage including (i) a first differential pair of input transistors coupled to a supply voltage through a first common-mode transistor and (ii) a first pair of emitter-follower output transistors coupled to said first differential pair of input transistors;

(b) a second amplifier stage, said second amplifier stage including (i) a second differential pair of input transistors coupled to said supply voltage through a second common-mode transistor and (ii) a second pair of emitter-follower output transistors coupled to said second differential pair of input transistors, wherein said second differential pair of input transistors is coupled to said first pair of emitter-follower output transistors; and

(c) a voltage regulator coupled to control said first common-mode transistor, said voltage regulator including (i) a differential amplifier with a first input from a reference voltage, a second input from a temperature responsive unit, and an output to a third transistor connected between a supply voltage and said temperature responsive unit and (ii) a regulated voltage output locus between said third transistor and said temperature responsive unit, wherein said temperature responsive unit includes in series a first resistor, a second resistor, and a diode-connected transistor.

Claim 22 (new) The amplifier of claim 21, wherein (i) said first resistor is between said output locus and said diode-connected transistor, said diode-connected transistor is between said first resistor and said second resistor, and said second resistor is between said diode-connected transistor and ground, and (ii) said input from a temperature responsive unit connects between said diode-connected transistor and said second resistor.

Claim 23 (new) The amplifier of claim 21, wherein (i) said diode-connected transistor is between said output locus and said first resistor, first resistor is between said diode-connected transistor and said second resistor, and said second resistor is between said first resistor and ground, and (ii) said input from a temperature responsive unit connects between said first resistor and said second resistor.

Claim 24 (new) The amplifier of claim 21, wherein said first differential pair of input transistors are NPN bipolar transistors, said first pair of emitter-follower output transistors are NPN bipolar transistors, said first common-mode transistor is a PMOS transistor, and said diode-connected transistor is an NPN bipolar transistor.

Claim 25 (new) The amplifier of claim 21, wherein said voltage regulator is coupled to control said second common-mode transistor.

Claim 26 (new) The amplifier of claim 25, further comprising:

(a) a third amplifier stage, said third amplifier stage including (i) a third differential pair of input transistors coupled to said supply voltage through a third common-mode transistor and (ii) a third pair of emitter-follower output transistors coupled to said third differential pair of input transistors, wherein said third differential pair of input transistors is coupled to said second pair of emitter-follower output transistors.